AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Original) A method of attaching hydrophilic species to hydrophilic macromolecules and immobilizing the hydrophilic macromolecules on a hydrophobic surface, said method comprising the steps:

- exposing hydrophilic macromolecules to hydrophilic species whereby the hydrophilic species are attached to the hydrophilic macromolecules,
- providing a hydrophobic surface,
- immobilizing the hydrophilic macromolecules on the hydrophobic surface.

2. (Original) A method of attaching hydrophilic species to hydrophilic macromolecules immobilized on a hydrophobic surface, said method comprising the steps:

- providing a hydrophobic surface,
- immobilizing hydrophilic macromolecules on the hydrophobic surface,
- exposing the hydrophilic macromolecules immobilized on the hydrophobic surface to hydrophilic species, whereby the hydrophilic species are attached to the hydrophilic macromolecules.

3. (Curently Amended) A method according to ~~any of claims 1 - 2~~ claim 1 or claim 2, characterized in that the hydrophilic species comprises nanoparticles.

4. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that the hydrophilic species is in solution.

5. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, comprising the additional step:

- growing the attached hydrophilic species to a larger size.

6. (Original) A method according to claim 5, characterized in that growing the attached hydrophilic species to a larger size is achieved by exposing the attached hydrophilic species to an electroless plating solution.

7. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that immobilizing the hydrophilic macromolecules on the hydrophobic surface occurs by applying the hydrophilic macromolecules to the hydrophobic surface.

8. (Original) A method according to claim 7, characterized in that applying the hydrophilic macromolecules to the hydrophobic surface occurs by a process selected from spin-coating, dip-coating, drop-casting, stamping, molecular combing, spraying-techniques, inkjet-printing and doctor-blading.

9. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that exposing the hydrophilic macromolecules to hydrophilic species, whereby the hydrophilic species are attached to the hydrophilic macromolecules, occurs over a period of time between 1 second and 120 minutes.

10. (Original) A method according to claim 9, characterized in that exposing the hydrophilic macromolecules to hydrophilic species occurs over a period of time between 10 seconds and 10 minutes.

11. (Currently Amended) A method according to ~~any of claims 4 – 10~~ claim 4, characterized in that the solution is a solution of the hydrophilic species in water or of the hydrophilic species in a water-miscible organic solvent/water mixture.

12. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that water has a contact angle on the hydrophobic surface in the range of from 30° to 110°.

13. (Original) A method according to claim 12, characterized in that water has a contact angle on the hydrophobic surface in the range of from 60° to 110°.

14. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that the hydrophilic species is selected from the group comprising water soluble metal nanoparticles, semiconductor nanoparticles and dielectric (insulator) nanoparticles, hydrophilic clusters and metallic complexes.

15. (Currently Amended) A method according to ~~claims 3 – 14~~ claim 3, characterized in that the nanoparticle has a core and comprises a metal or metal oxide in the core, where the metal is selected from the group comprising Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir, Ag, Pt, Au or combinations, especially alloys of these metals.

16. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that the hydrophilic macromolecules are selected from the group comprising nucleic acids, proteins, dendrimers, latex spheres, polyelectrolytes, and water-soluble polymers.

17. (Original) A method according to claim 16, characterized in that the nucleic acid is selected from the group comprising DNA, RNA, PNA, CNA, oligonuclotides, oligonucleotides of RNA, A-DNA, B-DNA, Z-DNA, polynucleotides of DNA, polynucleotides of RNA, T-junctions of nucleic acids, triplexes of nucleic acid, quadruplexes of nucleic acids, domains of non-nucleic acid polymer-nucleic acid block-copolymers and combinations thereof.

18. (Original) A method according to claim 17, characterized in that the nucleic acid is double-stranded or single-stranded.

19. (Currently Amended) A method according to ~~any of the foregoing claims~~ claim 1 or claim 2, characterized in that the hydrophilic species is selected from the group comprising tris(hydroxymethyl)phosphine-gold nanoparticles (THPAuNPs).

20. (Currently Amended) A method according to ~~any of claims 6—19~~ claim 6, characterized in that the electroless plating solution comprises a gold salt and a reducing agent.

21. (Original) A nano-assembly, comprising

- a hydrophobic surface
- hydrophilic macromolecules immobilized on the hydrophobic surface
- a hydrophilic species attached to the hydrophilic macromolecules.

22. (Original) Use of a nano-assembly according to claim 21 as a nanoscale element in a device.

23. (Original) Use according to claim 22, characterized in that function of the nanoscale element is selected from the group comprising interconnect, sensor, optical absorber, actuator, transducer and memory.